

Application No. 10/666,517

Reply to Office Action

*REMARKS/ARGUMENTS**The Present Claims*

The pending claims are directed to an aqueous dispersion comprising fumed alumina particles, at least one zirconium compound, and water. Claims 1-3, 5-7, 10-15, and 17-29 are currently pending in the application.

*Discussion of the Claim Amendments*

Claim 1 has been amended to recite that the total amount of the zirconium compound in the dispersion is sufficient to provide an equivalent weight ratio of zirconium oxide to fumed alumina of at least about 0.1. Claims 8, 9, and 16 have been canceled, claim 14 has been amended to be consistent with claim 1 from which it depends, and the dependency of claims 10 and 17 has been changed accordingly. These amendments are supported by the disclosure as originally filed at page 5, paragraph [0020]. No new matter has been added by way of these amendments.

*Summary of the Office Action*

The Office Action rejects claims 1-3 and 5-29 as allegedly anticipated under 35 U.S.C. § 102(e) over U.S. Patent Application Publication 2004/0001926 A1 (hereinafter the "Sharma '926 publication") in view of (a) U.S. Patent 6,689,432 (hereinafter the "Kitamura '432 patent"), (b) U.S. Patent 6,458,812 (hereinafter the "Sekiguchi '812 patent"), (c) U.S. Patent 5,266,383 (hereinafter the "Sakaki '383 patent"), (d) U.S. Patent 5,246,774 (hereinafter the "Sakaki '774 patent"), or (e) U.S. Patent 5,081,470 (hereinafter the "Kurabayashi '470 patent"). Since this rejection is listed under the heading "Claim Rejections - 35 U.S.C. § 103" in the Office Action and since the Sharma '926 publication is combined with additional references, the rejection presumably is made under 35 U.S.C. § 103(a), rather than 35 U.S.C. § 102(e).

*Discussion of the Rejection*

The Sharma '926 publication generally discloses an ink jet recording element comprising a support with an image-receiving layer containing finely divided particulate material and a metal(oxy)hydroxide complex. The image-receiving layer can be formed from

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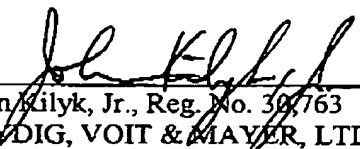
an aqueous dispersion coated onto a paper support. The particulate matter can be fumed alumina, and the metal(oxy)hydroxide complex can be a zirconium compound.

The claims as amended recite that the total amount of the zirconium compound in the dispersion is sufficient to provide an equivalent weight ratio of zirconium oxide to fumed alumina of at least about 0.1. The Sharma '926 publication fails to disclose a dispersion comprising fumed alumina and a zirconium compound having the equivalent weight ratio of zirconium oxide to fumed alumina recited by the present claims. As demonstrated in Example 6 of the present patent application, the inventive dispersions of Example 1, having an equivalent weight ratio of zirconium oxide to fumed alumina of 0.18:1, and Example 2, having an equivalent weight ratio of zirconium oxide to fumed alumina of 0.42:1, unexpectedly increased resistance to ozone-mediated degradation of images printed on the inventive recording media. The Sharma '926 publication fails to teach or suggest any method of mediating ozone-related degradation, let alone mediation by the adjustment of the equivalent weight ratio of zirconium oxide to fumed alumina. The Sharma '926 publication suggests the addition of UV absorbers, radical quenchers, or antioxidants in order to reduce image fade, thereby teaching away from the adjustment of the equivalent weight ratio of zirconium oxide to fumed alumina as a means to reduce image fade by improving resistance to ozone-mediated degradation. Accordingly, the obviousness rejection based on the aforementioned combinations of references is improper and should be withdrawn.

#### *Conclusion*

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

  
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